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Volume = Base Area x Height of Object

Example 1 (What Shape?) ^{p. 19}
 Triangular Prism
 Volume = Base Area x Height of Object

$$\text{Volume} = \frac{b \times h}{2} \times H$$

$$V = \frac{2.5 \times 0.45}{2} \times 1.2$$

$$V = 0.5625 \times 1.2 \text{ m} \\ = 0.675 \text{ m}^3$$

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Volume = Base Area x Height of Object

Example 2 p. 20 Solving for Variables

Example 2 (What Shape?)

$V = A_b \times H$
 $V = \pi r^2 h$
 Conversion Factor
 $1 \text{ ft} = 0.3048 \text{ m}$
 $0.3048 \times 2 = 0.6096$

$V = \pi r^2 h$
 $1.5 = 3.14 r^2 (0.6096)$
 $1.5 = 1.914 r^2$
 $\frac{1.5}{1.914} = r^2$
 $\sqrt{0.78} = r$
 $0.89 = r$

The radius of our pot holder is 0.89 m.

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Volume = Base Area x Height of Object

Volume of a Composite Figure

Example 3 p. 21

Option #1
 $V = \left[(0.15 \times 0.15) \times 0.9 \right]$
 Option #2
 $(0.45 \times 0.45) \times 0.9$

Option #1
 $V = 0.1215 \text{ m}^3$

Option #2
 $V = 0.1215 \text{ m}^3$

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Key Concepts

- all measures /units must be common
- $V_{\text{SHAPE}} = A_b \times H_T$

Hmk p. 23-25

q. 1,2,4-8, 9*

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#7 $C = 40 \text{ cm}$ cyl
 $V = 500 \text{ cm}^3$

$$V = \pi r^2 \times h$$

$$C = \pi d$$

$$40 = 3.14 d$$

$$\frac{40}{3.14} = d$$

$$12.74 = d$$

$$r = \frac{d}{2} \\ = \frac{12.74}{2} \\ = 6.37$$

Feb 8-10:39 AM